



Building Consistency Meeting

Residential

Date: 7/1/09 Recorder and minutes prepared by: Danny Wooten/Jeff Griffin

Staff present: Jeff Griffin, Tim Taylor, Danny Wooten, Steve Kellen, Harold Sinclair, Walt Nash, Ron Dishman, David Williams, Patrick Biddy, Don Sprinkle, Darrell McAllister.

Public present: Hans Kasak (**Ryland Homes**); Bob McKee (**Ryan Homes**); Dave Reynolds (**Bldrs, 1st source**); David R. Schwieman (**DR Schwieman, Inc**); Wayne Carter (**J&B Development**); Daniel McBride (**Cunnane Group**); Jason Whitener (**Southern Tradition Homes**); Rob Merrell/Kevin Ratcliff (**Griffin Masonry**); Terry Cleary (**Meeting Street Homes**); Chad Ritter PE (**IDE**).

Topics/Subject	Decisions/Conclusions/Actions
Old Business	
None	
New Business	
New permit fee changes	Announcement was made about permit fee changes effective in July. Information on the current fee schedule can be found on our website at www.meckpermit.com under publications on the left side of the main page.
Changes within the Department	During the consistency meeting we discussed several issues such as staff reductions and the need to have jobs ready when called in, inspectors will have much larger areas after July 1 st and will not have the ability to make return trips to jobsites. Discuss re-organization efforts are still under way with 3 working models that will be presented shortly to the industry to obtain feedback on the direction service will be offered in the future.
Section R404.1 code change proposal	Handout was passed out on a code change proposal to remove this section of the NC2009 Code. The 2009 IRC which will be our 2012 Code has already removed this section. The code change proposal is to try and get this section removed within the 2009 code, to allow for a builder to take as an alternate early if so approved by the Council. Attached is copy of the proposal and reason for change.
Master plan review submittal	Effective July 1, 2009 we will no longer review new or revised master plan unless the submittal is accompanied by a permit. In lieu of a permit a 25% deposit of the estimated permit fee may be deducted to perform the review. This money will be included in the permit fee on the first permit submitted for that plan.
Townhouse roof deck product	Field issue brought up concerning a specific product used on townhouse roof decking as an alternate to a parapet wall construction between units. Under section R802.1.3 requires FRTW-fire retardant treated

	<p>wood to be tested under ASTM E 84 and be impregnated with chemicals by a pressure process. The product in question (flamdexx) has a surface applied coating and would be considered an alternate material to the specific code requirements. As an alternate Mecklenburg County looks to ICC for an evaluation report on any given product to see if its current and what the limitations of usage are. This product has no report and could not be approved for usage in this market.</p>
<p>Builders insulation-fenestration sticker locations</p>	<p>Issue was brought up in regards to other approved locations as listed in section N1101.8. The 2009 Code specifically list kitchen cabinets and electrical panel box but other locations were discussed as allowed under this section “or other approved locations”. It would be acceptable to place this permanent sticker/builders certification in the attic beside the installer certificate of blown/sprayed insulation. A sample of this required certificate is shown below and we are currently enforcing on anything permitted after July 1, 2009 at the final inspection.</p> <div data-bbox="628 732 1169 1152" data-label="Form"> <p><u>Builder/Designer Certification</u> (as listed in section N1101.8 of the NC Residential Code)</p> <p><u>Component R-Values as applicable</u></p> <p>Ceilings: _____ Slab: _____ Walls: _____ Basement walls: _____ Floors: _____ Crawl space walls: _____ Mass wall _____</p> <p>Fenestration U Factor _____ Fenestration SHGC (solar heat gain coefficient) _____ (Doors and 15sq ft total exempt from SHGC) Ducts outside conditioned spaces R-value _____</p> <p>_____ <i>Builder name</i> <i>Builder/Designer signature</i></p> <p><small>*This permanent certification label required to be fixed to electrical distribution panel, kitchen cabinet or other approved location.</small></p> </div>
<p>New Code</p>	<p>The NC 2009 residential code became mandatory on July 1st 2009 on any permit pulled on that date or later. Code books are available from ICC at www.iccsafe.org and NC commentary books should be available shortly.</p>



NORTH CAROLINA BUILDING CODE COUNCIL

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PROPONENT:

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CITY: Charlotte

STATE: NC

ZIP: 28202

North Carolina State Building Code, 2009 North Carolina Residential Code

CHECK ONE: ☐ Revise section to read as follows: ☐ Delete section and substitute the following.
☐ Add new section to read as follows: ☒ Delete section without substitution.

~~LINE THROUGH MATERIAL TO BE DELETED~~
ADDED

UNDERLINE MATERIAL TO BE

Type or print. Continue proposal or reason on plain paper attached to this form. See reverse side for instructions.

Section R404.1 Concrete and Masonry Foundation Walls.

Concrete and masonry foundation walls shall be selected and constructed in accordance with the provisions of Section R404 or in accordance with ACI 318, ACI 332, NCMA TR68-A or ACI 530/ASCE 5/TMS 402 or other approved structural standards. When ACI 318, ACI 332 or ACI 530/ASCE 5/TMS 402 or the provisions of Section R404 are used to design concrete or masonry foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

Recommend deleting second paragraph without substitution:

~~Foundation walls that meet all of the following shall be considered laterally supported:~~

- ~~1. Full basement floor shall be 3.5 inches (89mm) thick concrete slab poured tight against the bottom of the foundation wall.~~
- ~~2. Deleted.~~
- ~~3. Bolt spacing for the sill plate shall be no greater than 36 inches (914mm).~~
- ~~4. Deleted.~~
- ~~5. Where foundation walls support unbalanced load on opposite sides of the building, such as a daylight basement, the building aspect ratio, L/W, shall not exceed the value specified in Table R404.1(3). For such foundation walls, the rim board shall be attached to the sill with a 20 gage metal angle clip at 24" on center, with five 8d nails per leg, or an approved connector supplying 230 pounds per linear foot (3.336kN/m) capacity.~~

Also Delete Table R404.1 (3) referenced above

Will this proposal add to the cost of construction? Yes [] No [x]

Explain total economic impact for added cost or savings in REASON. **Provide a fiscal analysis of any increase in cost.**

Reason:

In the 2009 IRC, tables R404.1 (1) thru R404.1 (3) have been removed along with the second paragraph as listed above (see reason indicated in the IRC attached). This change has created several concerns and proposal is to revise current requirements to address issue before the 2012 cycle.

BCC CODE

CHANGES

Signature Jeff Griffin

DATE: June 19, 2009 FORM

5/1/02

114 PART 3 ■ Building Planning and Construction

**Tables
R404.1(1)
through
R404.1(3)
Lateral Support for
Concrete and Masonry
Foundation Walls**

CHANGE TYPE: Deletion

CHANGE SUMMARY: The prescriptive lateral restraint provisions for the top of concrete and masonry foundation walls based on soil type, height of wall, and unbalanced backfill height have been removed from the code.

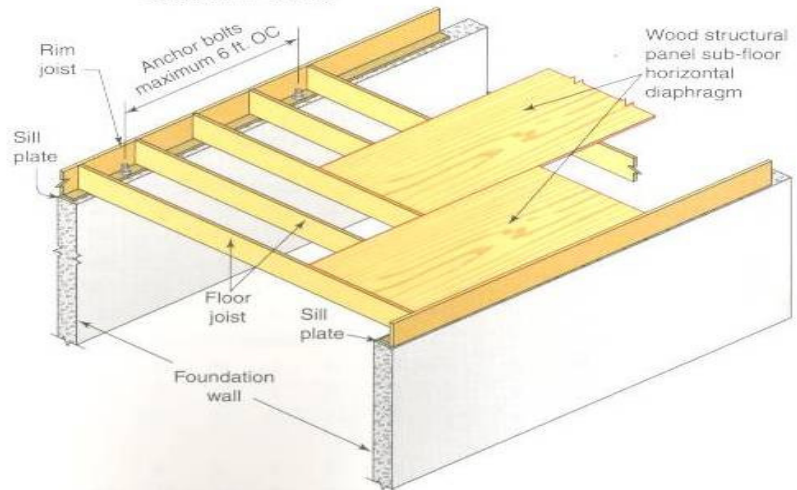
2009 CODE: R404.1 Concrete and Masonry Foundation Walls.

Delete second paragraph without substitution:

Foundation walls that meet all of the following shall be considered laterally supported:

1. Full basement floor shall be 3.5 inches (89 mm) thick concrete slab poured tight against the bottom of the foundation wall;
2. Floor joists and blocking shall be connected to the sill plate at the top of wall by the prescriptive method called out in Table R404.1(1), or; shall be connected with an approved connector with listed capacity meeting Table R404.1(1);
3. Bolt spacing for the sill plate shall be no greater than per Table R404.1(2);

Connections and fasteners for wood framing must conform to Table R602.3(1)
Foundation anchorage must conform to Section R 403.1.6



Prescriptive lateral support for top of foundation walls

4. Floor shall be blocked perpendicular to the floor joists. Blocking shall be full depth within two joist spaces of the foundation wall, and be flat-blocked with minimum 2-inch-by-4-inch (51 mm by 102 mm) blocking elsewhere.
5. Where foundation walls support unbalanced load on opposite sides of the building, such as a daylight basement, the building aspect ratio, L/W , shall not exceed the value specified in Table R404.1(3). For such foundation walls, the rim board shall be attached to the sill with a 20 gage metal angle clip at 24 inches (610 mm) on center, with five 8d nails per leg, or an approved connector supplying 230 pounds per linear foot (3.36 kN/m) capacity.

Table R404.1(1)**Top Reactions and Prescriptive Support For Foundation Walls^a****Table R404.1(2)****Maximum Plate Anchor-Bolt Spacing For Supported Foundation Wall^a****Table R404.1(3)****Maximum Aspect Ratio, L/W for Unbalanced Foundations**

CHANGE SIGNIFICANCE: Prior to the 2006 edition, the IRC and the legacy *CABO One- and Two-Family Dwelling Code* relied on the prescriptive provisions for anchor bolt spacing and floor framing connections to provide lateral restraint at the top of basement foundation walls. As the result of engineering analysis, the 2006 IRC introduced additional requirements for anchor bolt spacing, floor joist attachment and blocking, and maximum aspect ratio for walk-out basements. The tabular values for these new requirements varied based on the height of the foundation wall, the maximum unbalanced backfill height, and the type of soil. Deletion of these lateral restraint provisions brings the 2009 IRC into agreement with the 2000 and 2003 editions.

Proponents of removing the top of foundation wall lateral restraint provisions reasoned that the traditional prescriptive provisions for anchor bolts and floor system connections have performed well for many years without substantiated problems or failures. It was also argued that the engineering analysis used to justify introduction of the lateral restraint provisions was overly conservative and failed to take into account all design factors.